



Patent  
Attorney's Docket No. 017750-506

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JFW

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent Application of

Robert J. Martin

Application No.: 09/666,301

Filed: September 21, 2000

For: TWO COLOR QUANTUM WELL  
FOCAL PLANE ARRAYS

) **MS Appeal Brief - Patents**

) Group Art Unit: 2878

) Examiner: Timothy MORAN

) Confirmation No.: 8409

**REPLY BRIEF FOR APPELLANT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

This Reply Brief is submitted in response to the Examiner's Answer mailed 29 March 2004. Two extra copies of this Reply Brief are filed herewith.

Appellant respectfully acknowledges the Examiner's Answer, but continues to disagree with the Examiner's position for the reasons set forth in the Appellant's Appeal Brief filed 03 July 2003 and Supplemental Appeal Brief filed 05 January 2004, and for reasons set forth below.

In the *Response to Argument* section of the Examiner's Answer, the Examiner provides five paragraphs of counterargument, all directed to the issue of enablement.

In the first and fourth paragraphs paragraph, the Examiner argues that a method of detecting a rate of moving charges is not described in the originally filed application, and concludes therefore that the presently pending claims are not enabled under 35 U.S.C. § 112, 1<sup>st</sup> paragraph. This argument is incorrect because the claims do not recite an apparatus or method step for detecting a rate of moving

charges. Accordingly, this ground for sustaining an enablement rejection under 35 U.S.C. § 112, 1<sup>st</sup> paragraph is moot and improper.

In the second, third and fifth paragraphs, the Examiner continues to improperly read a feature of detecting a rate of moving charges into the claims by referring to “the specific decision method of the present claims (detecting a charge well filling rate)” to support various arguments of non-enablement, thereby rendering those arguments incorrect.

In the second paragraph the Examiner asserts that the art of varying capacitance is a large one, and therefore undue experimentation would be required to make and use the claimed invention, in particular to discern when to vary the integration capacitance. This is incorrect. In addition to the reasons set forth in the previously filed Brief and Supplemental Brief, Appellant notes that unlike many aspects of the chemical and biological arts, the electronic capacitance art is relatively predictable. Furthermore, Appellant notes that the originally filed application provides information that those of ordinary skill in the art would have recognized and used to discern when to vary the integration capacitance in an actual implementation of the present invention. In particular, the originally filed application discusses the structure and function of the read-out circuit (see for example page 8, line 21 to page 9, line 11), including the length of the image frame, or full frame time over which collected signal photons are integrated. As those of ordinary skill would clearly have recognized, the selection of a specific full frame time for a particular implementation can influence when the integration capacitance can or should be varied. For at least these reasons, Appellant respectfully submits that a person of ordinary skill in the art


at the time of the invention would have been able to make and use the presently claimed invention with routine experimentation and without undue experimentation.

For at least the reasons presented above, Appellant respectfully submits that the rejections of the claims are not properly founded in the statute and should be reversed.

Respectfully submitted,

BURNS, DOANE, SWECKER & MATHIS, L.L.P.

Date: 01 June 2004

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